



U.S. Department  
of Transportation

Research and  
Special Programs  
Administration

JUN 27 2000

400 Seventh Street, S.W.  
Washington, D.C. 20590

DOT-E 12087  
(FIRST REVISION)

EXPIRATION DATE: May 31, 2002

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: LND, Incorporated  
Oceanside, New York
2. PURPOSE AND LIMITATIONS:
  - a. This exemption authorizes the manufacture, mark, sale and use of nonrefillable, non-DOT specification cylinders for the transportation in commerce of the Division 2.3 material authorized by this exemption. The cylinders are described as electron tubes that are part of radiation detectors. This exemption provides no relief from any Hazardous Materials Regulation other than as specifically stated herein.
  - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with use as a component of a device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101 Column 9 in that Boron Trifluoride is forbidden by air; the labeling and placarding requirements of Part 172, Subparts E and F as prescribed in Special Provision 8.f. of this exemption; § 173.302(a)(1) and § 175.3 in that the prescribed packagings are not authorized; and in the ICAO Technical Instructions Table 2-14, Columns 9, 10, 11, and 12.
5. BASIS: This exemption is based on the application of LND Incorporated dated June 12, 2000, submitted in accordance with § 107.105.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Boron Trifluoride, compressed	2.3	UN1008	N/A, Hazard Zone B

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are nonrefillable, non-DOT specification cylinders described as electron tubes. The electron tubes are constructed of stainless steel or aluminum. The tubes have welded, soldered, or solder glassed joints, and brazed metal to ceramic electrical feed-through assemblies. The maximum tube volume is 122 cubic inches, the maximum operating pressure is 3 psig. The design burst pressure of each electron tube must be at least 4 times the operating pressure but no less than 100 psig. Each electron tube must be manufactured in accordance with drawings on file with the Office of Hazardous Materials Exemptions and Approvals.

c. OPERATIONAL CONTROLS -

(1) Electron tubes must be shipped in strong outside packagings that are capable of withstanding a drop of 6 feet without breakage or rupture of the outside packaging or the contents.

(2) Notwithstanding § 175.3, packagings prescribed by this exemption may be shipped by passenger or cargo aircraft in packages of no more than 57 grams of Boron trifluoride each.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

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- b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.
  - c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.
  - d. Each packaging manufactured under the authority of this exemption must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.
  - e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.
  - f. Except when transported by air, packages prescribed by this exemption are excepted from 49 CFR Part 172, Subparts E (labeling) and F (placarding).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only, and passenger aircraft.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this exemption. The shipper must furnish a current copy of this exemption to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by § 172.700 through § 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.



*for* Robert A. McGuire  
Acting Associate Administrator for  
Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Docket Section, 202-366-5046.

PO: CWFREEMAN/sln